

Russell T. Posthauer, Jr., P.E., President  
Steven C. Sullivan, P.E., Vice President  
Kerry M. Hanlon, P.G., L.E.P.  
Nicholas Yuschak Jr., R.L.A  
Robert Ivancso, R.L.S.



40 Old New Milford Road  
Brookfield, CT 06804  
tel 203-775-6207  
fax 203-775-3628  
www.ccaengineering.com  
mail@ccaengineering.com



## PLAN REVISION OUTLINE

October 29, 2020

Revised November 19, 2020

1. A separate erosion control plan and a utility plan was created
2. Topsoil storage area was increased. Note the majority of the topsoil in the building and driveway areas will be removed from the site.
3. Siltation controls added to some catch basins and in the area around the pipe outlet.
4. We added a gated fence to restrict access to the wetlands by the garage.
5. The outlet pipe and end wall were located (by the garage).
6. The garage is included in the application since it apparently never received an environmental permit.
7. A CDS Cascade separator was added to the drainage system near the garage.
8. A D.O.T. type plunge pool was added at the outlet of drainage system and riprap protection added to the adjoining slope.
9. A small area of fill is proposed to be removed (near garage)
10. The 6" pipe has been extended to the yard drain as requested.
11. A shallow berm was added in the yard drain area.
12. An unknown pipe was located and shown on the plans in the lower parking area. It is proposed to properly abandon it and connect the catch basin to the adjoining catch basin.
13. Stormwater and construction sequence plans revised and added to sheet N3.
14. Existing trees near construction area that should have tree protection have been indicated.
15. Details were added, as necessary.

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September 21, 2020  
Revised November 23, 2020

## STORMWATER MANAGEMENT

Church of The Resurrection  
115 Pond Hill Road  
Wallingford, CT

### Project:

The church is proposing a 7,700 s.f. addition with a fire lane and additional sidewalks. This addition will be to the south of the existing church and be connected to the church. Please refer to the site plan. Soils identified in the vicinity of the building are Ludlow silt loam (40A) & Udorthents-Urban land Complex (301A). Based on borings test results for the proposed building the soils are expected to be gravelly. As a result of the building addition, drainage is proposed as well as a stormwater detention system. The stormwater system is to the west of the church and the proposed addition. The slope area west of the garage will be protected with riprap. A small area just south of the riprap is proposed to be regraded to reduce fill that appears to have at an earlier point of time.

### Drainage:

The proposed drainage system collects the addition's roof drains, access drive and a small area of the lawn. This drainage discharges to gallery system which then discharges uphill of an existing yard drain. Roof drainage is connected directly to a catch basin. Runoff from the access drive goes from the driveway thru a gravel spreader then over grass to a catch basin. The gallery outlet pipe discharges to the existing yard drain. As this yard drain is in a depressed area. A shallow berm has been added to the north of this yard drain to help prevent flow towards the neighbors. The overland flow to this drain remains essentially the same. The yard drain drains to the site drainage system which drains to the wetlands. The drainage calculations are attached.

In the existing parking lot additional improvements have been proposed to be installed. An oil / grit separator has been added into the drainage system in the vicinity of the garage. The headwall was located. A riprap pad is now indicated at the outlet of the drainage system.

The gallery system consists of 4 rows of 121' of Cultec 280HD Rechargers with a liner. There is also an outlet structure. This system reduces the stormwater flows to below existing conditions. Please refer to the chart below.

Existing vs Proposed Stormwater Flows:

*ENGINEERING • SURVEYING • ENVIRONMENTAL • LANDSCAPE ARCHITECTURE*

|        | 2 yr     | 10 yr    | 25 yr    | 50 yr    | 100 yr   |
|--------|----------|----------|----------|----------|----------|
| YD EX. | 0.91 CFS | 2.73 CFS | 4.08 CFS | 5.13 CFS | 6.31 CFS |
| YD PR. | 0.79 CFS | 2.36 CFS | 3.50 CFS | 4.4 CFS  | 5.40 CFS |

### CONSTRUCTION SEQUENCE

1. Install siltation fence and catch basin protection as shown on the plans.
2. The detention gallery system's outlet structure and pipe to be installed including the berm near the yard drain to be constructed including final seeding.
3. Install detention system. Inlet pipe to be capped at catch basin until site is stabilized.
4. Bring the site grading to rough grade. All new slopes greater than 3:1 shall be protected immediately with "Curlex".
5. Install catch basin "A".
6. Construct proposed building foundation & roof drains. Building construction may start after #1 but roof drain should wait to until the detention system is installed.
7. Sit shall be cleaned, erosion controls removed and any remaining disturbed areas to be topsoiled and seeded

### CONSTRUCTION STORMWATER MAINTENANCE

1. Prior to the start of any soil disturbance erosion controls shall be installed.  
During construction, the existing yard drain shall be protected with hay bales and a silt sack.
2. When the new proposed catch basin is installed it shall be protected with hay bales and a silt sack.
3. Erosion controls shall be inspected weekly and a log kept. Any damage shall be immediately repaired.

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## CHURCH OF THE RESURRECTION

### LONG TERM STORMWATER MAINTENANCE

1. All paved areas should be swept at the end of April. The Church should use the minimum amount of salt and sand as possible, but also keeping the site safe for pedestrians.
2. In the spring of each year all catch basins and yard drains shall be inspected and cleaned if over 50% filled. Drywell to be inspected and any debris removed.
3. In September and June of every year the gallery inspection ports shall be inspected to determine if silt is accumulating. Any silt observed shall be removed. Please refer to the Cultec maintenance handbook attached.
4. OGS(Cascade) unit shall be inspected quarterly. After one year the inspection timing can be revised based on these inspections. When the unit is at 50% capacity a cleaning shall be required.
5. Brook in area of parking lot and garage shall be kept clean of debris.
6. Lawn maintenance crews are to be instructed to keep all catch basin and yard drain grates free of debris by removing yard clippings, etc. during every visit. Such debris to be removed from the site. During the fall, these grates shall be inspected weekly.
7. The area just west of the parking lot shall be inspected monthly by Church staff to assure that no cleanup debris or other items are being placed in this area.
8. Vegetation in the storm culvert outlet area shall be cut yearly (and removed) to avoid trees and large shrubs from clogging this area.
9. Excessive mulching around trees and shrubs should be avoided.

